1994 Galveston Nourishment Project Abstract

1994 Galveston Nourishment Project (Eastern segment of the Seawall).

Included are <u>shapefiles</u> with the 1994 Borrow areas (polygons) that CPE used for the 1994 Galveston Nourishment Project (Eastern segment of the Seawall). Also included in the zipped files are shapefiles with data for vibracores and surface sediment samples that CPE digitized in a feasibility study for sand resources along Jefferson and Galveston Counties. The dredged Borrow area in the 1994 project is the most eastern one. A short abstract describing the 1994 borrow area can be found below. As a reference for this text and data you can use:

FINKL C.W., ANDREWS J.L., CAMPBELL T.J., BENEDET L., (2002)

Feasibility Study, Eastern Texas Offshore Geotechnical Investigation: An Analysis of Reports, Research Articles, And Other Sources of Geotechnical and Geophysical Data For Locating Beach Compatible Sands Along the Eastern Texas Inner Shelf. Unpublished Report prepared for Galveston and Jefferson Counties and the U.S. Army Corps of Engineers, Galveston District by Coastal Planning & Engineering Inc., Boca Raton, FL, 50p.

ABSTRACT

"In 1993, the City of Galveston retained the services of Coastal Planning & Engineering, Inc. (CPE, 1993) to provide coastal engineering design and permit acquisition services to the City's beach nourishment project. The City previously defined the "Big Reef" shoal, in the Galveston ship channel as a potential borrow area, but because of high shell content and long pumping distances, the use of "Big Reef" shoal proved cost prohibitive. As an alternative, CPE reviewed geophysical and geotechnical information available in order to determine whether a suitable sand source could be found closer to the project area (Spadoni, 1996). Using existing information, CPE developed a plan for vibracoring immediately offshore the project area (CPE; Rice, 1994). For the coring operation, CPE utilized Rice University facilities and personnel. Surveys were conducted mainly in the band of shoreface sands offshore of Galveston Island. Three potential borrow areas were identified as a result of this work (Figure 13). 106. These areas consisted of low relief sand deposits, parallel to the shore, with sediments slightly finer than native beach sediments. Sand thickness varied from 1 to 4 meters, and a few cores exhibited thin interlaminated layers of muddy sand, silty sand, mud or clay. The quality of the material of the nearshore borrow areas turned out to be more compatible than the material pre-delimited at the "Big-Reef" borrow area and was closer to the project area. Between the end of 1994 to May 1995, 542,000 m3 of beach quality sand was dredged from the most eastern borrow area and placed on the adjacent beach. 107. The final bid for the project was about \$2.5 million less than for the Big Reef area. Of the three borrow areas delimited by CPE during the 1994 sand search, only one was used in the Galveston Island Beach Nourishment project. The remaining two borrow areas contain approximately 350,000 m3 of sand".

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